

The weather may be cooling down, but roads continue to be a hot topic in American Fork. Last month, Citizens Want to Know addressed some of the basics of the city's road pan. Citizens Want to Know - Roads Pt. 1.

This month, we will look at various types of treatments that can be used to prolong the life of a road, budgetary issues, and more.



Citizens Want to Know: ROADS, PT. 2

There are two major factors to consider when evaluating a road: the condition of the road itself, and the utilities that are underneath it. An additional factor enters in when the city looks at the amount of traffic the road carries.

RSL not only stands for Real Salt Lake, but also for remaining service life of a road. "One of the ways we measure and assess the conditions of the road is to measure its distresses, the things wrong with the road," Public Works Director Scott Sensanbaugher said. "Depending on the type, size, number and severity of those distresses, we calculate what the remaining service life is. The rule of thumb is the more distresses there are, the more extensive and costly the treatment needs to be."

Sometimes we hear that we should treat only the worst roads first, but Sensanbaugher said that is not the best course of action, particularly if it means neglecting preventative maintenance on good roads. Neglecting preventative maintenance is certainly the most expensive strategy in the long run.

"So much of the goal of pavement management is to keep the good roads good," he said. "We do simpler, cheaper treatments to keep these roads from deteriorating to a point where they need very costly work. You can really delay the major treatments if you do that."

Sensanbaugher outlined three categories of treatments for roads: reconstruction, repair, and preventive maintenance. For a road to be reconstructed, it is like starting from scratch, he said. It is the most expensive treatment and is only done when there is no other choice. A repair on a road means work needs to be done to improve it, but the road has not yet deteriorated beyond repair. Typically, a repair for an entire street section would include a mill and overlay where the top inch or two of pavement is scraped off and new asphalt is overlayed on top.

There is a whole menu of choices for preventive maintenance, some of which includes seal coating and chip sealing, two of the most visible measures the city takes. They are often the most visible because of the lower cost and great results, so more miles of road can be done for a lower price.

"Sealants can dramatically extend the life of the road for comparatively little money," Sensanbaugher said. "But it only works if the road is still in fair condition. I like to think of the analogy of your car, he said. Regularly changing the oil or rotating the tires can dramatically extend your cars life and save you money in the long run. We need to keep the good roads good."

The unseen often plays a big part in determining how and when a road is repaired. The water pipes are among the biggest culprits. City officials evaluate how many leaks there are, how often they happen, and how bad they are. No one wants to repave a road, only to have to dig it up a year later to fix utilities underneath.

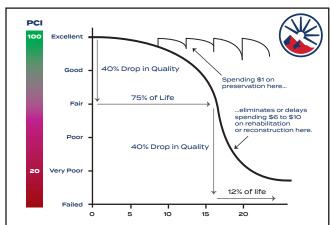


Figure 1- https://www.researchgate.net/publication/267206181_Investigation_of_the_Implementation_of_a_Probe-Vehicle_Based_Pavement_Roughness_Estimation_System

The above graph from a research article from the Center for Transportation Studies at the University of Virginia shows that adding minor treatments to a relatively new road can not only extend its life, but save significant costs over the life of the road. The exact dollar amounts may vary, depending on local circumstances, but the finding of the research is clear: preventative maintenance early in the life of a road saves money.

"In our community, 600 E is a good example," Sensanbaugher said. "There was no point in fixing that road without fixing the water lines first, which is what we are doing. We just had the bid opening and our city council awarded the contract to begin the project. We will have a new road and a new water line from 700 North to Main."

As road work is completed, residents can see the progress on a map at the city's website, americanfork.gov/streets. It shows work completed in recent years and what is currently under way.

Like other communities in the state, American Fork gets a portion of the tax charged on gasoline. It is currently approximately \$1 million a year. A property tax increase from 2008 generates approximately \$350,000, and that is dedicated for roads. Additional funding to fix roads is through the city's general fund.

"Over the past eight years, on average we have spent \$2.1 million annually on our roads," City Administrator David Bunker said. "We are taking even more money out of the general fund to put toward roads each year. But a preliminary estimate shows our needs are in the neighborhood of \$4-5 million a year to get our streets back up to the level we need."

Additional bad news is that the \$4-5 million does not include water, sewer or storm drain lines that need repair or replacement.

"We are creating a five-year plan that will be evaluated regularly," Bunker said. "We will make sure the utilities are good or we can fix them at the same time we do the roads."